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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,236	12/29/2000	Heikki Suonsivu	540-009.2	8481
4955	7590	02/24/2005	EXAMINER KADING, JOSHUA A	
WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP BRADFORD GREEN BUILDING 5 755 MAIN STREET, P O BOX 224 MONROE, CT 06468			ART UNIT 2661	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,236

Applicant(s)

SUONSIVU ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8 and 11 is/are allowed.
- 6) ☒ Claim(s) 7-10, 12, and 13 is/are rejected.
- 7) ☒ Claim(s) 2, 8, 12, and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 2, 8, 12, and 13 are objected to because of the following informalities:

As per the telephone conversation on February 8, 2005 and February 10, 2005
5 with Mr. Alfred A. Fressola, claims 2, 8, 12, and 13 will be examined as rewritten below
with the understanding that the next amendment filed will include the amended claims
as they appear below.

Claim 2 is rewritten as follows:

10 "A method for distributing configuration information in an xDSL network that
comprises network elements on certain hierarchical levels and a network managing
station, the method comprising the steps of:

- transmitting a request for configuration information from a first network element
located on a first hierarchical level to a second network element located on a second
15 hierarchical level, which second hierarchical level is above the first hierarchical level in
the xDSL network but which second network element is other than the network
managing station,

- as a response to receiving a request for configuration information from the first
network element, the second network element forwards the request to a third network
20 element located on a third hierarchical level, which third hierarchical level is above the
second hierarchical level in the xDSL network;

- the second network element examines whether a response is received from the third network element; and

- the second network element decides it is appropriate to read the configuration information requested in the request for configuration information from a configuration

5 memory of the second network element if the response is not received from the third network element; and if it is appropriate for the second network element to read configuration information, the second network element:

- reads the configuration information requested in the request for configuration information from a configuration memory of the second network
10 element, and,

- transmits the configuration information that was read from the configuration memory of the second network element to the first network element.”

15 Claim 8 is rewritten as follows:

“A method for achieving configuration information into a network element of an xDSL network that comprises network elements on certain hierarchical levels, the method comprising the steps of:

- transmitting a request for configuration information from a first network element
20 located on a first hierarchical level towards a second network element located on a second hierarchical level, which second hierarchical level is above the first hierarchical level in the xDSL network;

- the first network element decides it is appropriate to read the configuration information requested in the request for configuration information from a configuration memory of the first network element if a response is not received from the second network element before the end of a certain time limit; and if it is appropriate for the first network element to read configuration information, the first network element:

- reads the configuration information requested in the request for configuration information from a configuration memory of the first network element."

Claim 12 is rewritten as follows:

"A first network element of an xDSL network, which first network element is other than a network managing station and is arranged to communicate with other xDSL network elements that are located on lower hierarchical levels in the xDSL network and with at least one xDSL network element that is located on a higher hierarchical level in the xDSL network, and which first network element is arranged to store configuration information pertaining to the xDSL network element;

wherein the improvement lies in that the first network element is also arranged to store configuration information pertaining to at least one xDSL network element that is located on a lower hierarchical level in the xDSL network."

It should be noted that line 6 of claim 12, the phrase "pertaining to the network element" has been changed to --pertaining to the xDSL network element--.

Claim 13 is rewritten as follows:

"An xDSL network comprising network elements on certain hierarchical levels and a network managing station, wherein the improvement lies in that a number of said network elements other than the network managing station are arranged to store configuration information pertaining to other of said network elements that are located on lower hierarchical levels in the xDSL network than the number of said network elements at which the configuration information is stored."

Appropriate correction is required.

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

20

Claims 9, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,405,252 B1 (Gupta et al.).

25

Regarding claim 9, Gupta discloses, "a method for effecting changes into configuration information in an xDSL network that comprises network elements on

Art Unit: 2661

certain hierarchical levels and a network managing station (col. 6, lines 1-3 where the network can clearly be a DSL network; col. 14, lines 43-48 where there are a plurality of servers as in figure 1 that are on different hierarchical levels and all in communication with one another, none of which are a "managing station"), the method comprising the

5 steps of:

- at a certain first network element that is other than the network managing station and is located on a certain first hierarchical level, receiving a command for changing a piece of configuration information that pertains to a second network element that is located on a certain second hierarchical level, which second hierarchical level is
10 below the first hierarchical level in the XDSL network (col. 14, lines 43-48 whereby transmitting the configuration file to each server (node) in a hierarchical fashion, each node that receives the file will essentially be receiving a command to change the existing file with the newly received file, further, by distributing the file in a hierarchical fashion each node receiving the file, regardless of what level it's on, will receive the file
15 so all nodes on all levels receiving the file will receive it) and

- storing said piece of configuration information at a configuration memory of the first network element in a form that results from executing said received command (col. 14, lines 43-48 whereby having a new configuration file sent is to replace the old file)."

20 Regarding claim 12, Gupta discloses, "a first network element of an xDSL network, which first network element is other than a network managing station and is arranged to communicate with other xDSL network elements that are located on lower

Art Unit: 2661

hierarchical levels in the xDSL network and with at least one xDSL network element that is located on a higher hierarchical level in the xDSL network (col. 6, lines 1-3 where the network can clearly be a DSL type network; col. 14, lines 43-48 where there are a plurality of servers as in figure 1 that are on different hierarchical levels and all in communication with one another, none of which are a "managing station"), and which first network element is arranged to store configuration information pertaining to the xDSL network element; wherein the improvement lies in that the first network element is also arranged to store configuration information pertaining to at least one xDSL network element that is located on a lower hierarchical level in the xDSL network (col. 14, lines 43-48 whereby storing the node storing the configuration file containing information on nodes it controls is a node on a higher level storing information on a node of a lower level)."

Regarding claim 13, Gupta discloses, "an xDSL network comprising network elements on certain hierarchical levels and a network managing station, wherein the improvement lies in that a number of said network elements other than the network managing station are arranged to store configuration information pertaining to other of said network elements that are located on lower hierarchical levels in the xDSL network than the number of said network elements at which the configuration information is stored (col. 6, lines 1-3 where the network can clearly be a DSL type network; col. 14, lines 43-48 where there are a plurality of servers as in figure 1 that are on different hierarchical levels and all in communication with one another, none of which are a

"managing station"; further, the configuration file is sent to all nodes that receive it giving it information about other nodes on other hierarchical levels)."

Claim Rejections - 35 USC § 103

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15 Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (U.S. Patent 6,185,612 B1) in view of applicant's admitted prior art (AAPA).

 Regarding claim 7, Jensen discloses "a method for achieving configuration information into a network element of an...network that comprises network elements on certain hierarchical levels, the method comprising the steps of:

20 transmitting a request for configuration information from a first network element...to a second network element (figure 5, element 502 whereby sending a request, there is inherently a first network element (the transmitter) and a second network element (the receiver); col. 9, lines 34-36 where topology information is the configuration information)...

25 deciding, at the second network element...whether it is appropriate to read the configuration information requested in the request for configuration information from a

configuration memory of the second network element (figure 5, element 506 where authenticating the request is a way of determining whether it is appropriate to read configuration information, i.e. if it is authenticated the information can be read, if it is not the information is not read; also it should be noted that topology information is known to
5 be stored in a memory and thus must be read from a memory as in element 404 of figure 4)

in case it is decided to be appropriate, reading the configuration information requested in the request for configuration information from a configuration memory of the second network element (figure 5, element 506 where authenticating the request is
10 a way of determining whether it is appropriate to read configuration information, i.e. if it is authenticated the information can be read, if it is not the information is not read; also it should be noted that topology information is known to be stored in a memory and thus must be read from a memory as in element 404 of figure 4)."

Jensen lacks the network is "xDSL" and "...the first network element located on a
15 first hierarchical level...the second network element located on a second hierarchical level, which second hierarchical level is above the first hierarchical level in the xDSL network..."

However, AAPA discloses the network is "xDSL" (figure 1, where the switches are all xDSL switches) and "...the first network element located on a first hierarchical
20 level (figure 1, element 101 sends the request to element 111)...the second network element located on a second hierarchical level (figure 1, element 111), which second hierarchical level is above the first hierarchical level in the xDSL network..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchy with the rest of the method for the purpose of selecting an appropriate path for transmission (Jensen, col. 9, lines 59-61). The motivation being that the topology can reveal a shortest distance path or a path that has
5 no failures in it.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al. in view of AAPA.

Regarding claim 10, Gupta discloses the method of claim 9. Gupta further
10 discloses, "transmitting, a copy of the stored configuration information from said first network element towards the second network element as a command to start using the transmitted configuration information (col. 14, lines 43-48 whereby transmitting a new configuration file to other nodes on other hierarchical levels means that they are to start using this new file as the most up to date configuration file)..."

15 However, Gupta lacks what AAPA discloses, "...transmitting a copy of the stored configuration information from said first network element towards the network managing station as a report of changed configuration information (specification, page 3, lines 1-9)."

It would have been obvious to one with ordinary skill in the art at the time of
20 invention to include the transmitting a copy of the configuration change to the second network element and the managing station for the purpose of updating a central database with the configuration information. The motivation for updating a central

database of configuration information is so that a network manager can also have control of the network from the central managing station should the need arise (specification, page 2, lines 14-16).

5

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: Claims 2-4, 6, 8, and 11 are allowable because applicant amended independent claims 2, 6, 8, and 11 to incorporate dependent claims that were objected to as allowable in the previous Office Action.

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Claim 1 is allowable because the prior art of record fails to teach, in combination with other claim limitations, "deciding, at the second network element that is other than the network managing station, whether it is appropriate to read the configuration information requested in the request for configuration information from a configuration memory of the second network element, and in case it is decided to be appropriate, reading the configuration information requested in the request for configuration information from a configuration memory of the second network element and transmitting the configuration information that was read from the configuration memory to the second network element to the first network element."

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Response to Arguments

Applicant's arguments filed 7 October 2004 have been fully considered but they are not persuasive.

Applicant argues that claims 7, 9, 10, 12, and 13 are allowable for the following reasons:

Jensen's topology information used as an equivalent to applicant's configuration information, as defined by the specification, is not correct; Jensen does not discuss the network being of a hierarchical nature; and Jensen in view of AAPA lacks motivation for their combination.

The examiner respectfully disagrees.

Regarding the topology information of Jensen, applicant states that the configuration information is different from topology information because, according to the specification, configuration information is "a general term that means all such information that an active network element in an xDSL network needs for properly fulfilling its functional tasks in the network. Such configuration information... would include how the local network of the users couple to the outside world and what kind of limitations are applicable to communications through the xDSL connection." This is exactly what topology information is -- data indicating how the network nodes are connected to each other, and consequently the outside world, and which links/nodes have failed and which have not. This topology information clearly includes how the network of users couples to the outside world and the limitation (failed links/nodes) exist in the network.

Applicant further asserts that Jensen does not mention a hierarchical network. Although Jensen does not make an explicit declaration that the network is hierarchical, it should be noted that all networks have hierarchical attributes by their very nature, i.e.

Art Unit: 2661

there is a user node on one level connected to a node on a next level, which is connected to another node on another level, which is connected to yet another node on yet another level, etc. Jensen is no different. Further, AAPA clearly discloses the use of a traditional hierarchical type network in figure 1.

5 Lastly, applicant argues that Jensen in view of AAPA lacks motivation. As in the rejection of claim 7 above, Jensen, col. 9, lines 59-64 provides for the motivation for having a hierarchical type network communicating configuration (topology) information. The reason being that the topology information is used to determine usable paths in the network, thus allowing communication.

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Applicant's arguments, see REMARKS, page 10, lines 23-28, filed 7 October 2004, with respect to the rejection(s) of claim(s) 1 and 5 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the 35 U.S.C. 103 rejections of claims 1 and 5 have been withdrawn.

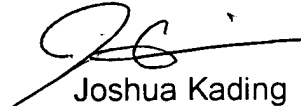
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Applicant's arguments with respect to claims 9, 10, 12, and 13 have been considered but are moot in view of the new ground(s) of rejection.

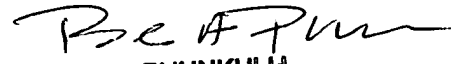
Any inquiry concerning this communication or earlier communications from the
20 examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

- Information regarding the status of an application may be obtained from the
- 5 Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic
- 10 Business Center (EBC) at 866-217-9197 (toll-free).


Joshua Kading
Examiner
Art Unit 2661

February 16, 2005

15 
BOB PHUNKULH
PRIMARY EXAMINER